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# **Proposed restricted area – Mahia Peninsula airspace user consultation**

# Table of Contents

<b>Introduction .....</b>	<b>1</b>
<b>Proposed restricted area.....</b>	<b>1</b>
Possible effect on IFR aircraft .....	3
Possible effect on VFR aircraft .....	3
<b>Consultation .....</b>	<b>3</b>
<b>Submissions.....</b>	<b>5</b>
<b>Further information.....</b>	<b>5</b>

## **Introduction**

U.S. aerospace manufacturer Rocket Lab intends to launch small satellites on a regular commercial basis from its site at the southern tip of Mahia Peninsula. Rocket Lab's first launch from Mahia was in May 2017, and the second test launch in January 2018 successfully inserted a payload into orbit. A third launch is planned to be completed by mid-2018.

During the launches, temporary special use airspace was designated in the interests of aviation safety. The airspace used was a combination of a restricted area for the actual launch and initial climb, and two temporary danger areas – one out to the boundary of the New Zealand FIR and the second adjoining danger area, downrange, within the Auckland Oceanic FIR – to warn pilots and operators about the potential hazard that may be caused by returning debris that doesn't burn up in the atmosphere such as the first stage and the rocket batteries.

To enable launches on a regular basis, Rocket Lab has applied for a permanently designated restricted area, activated by NOTAM, in the interests of aviation safety.

Launches will mostly be on a trajectories contained within an arc from due east, clockwise through to a south-southwest heading. This means that the boundaries of any restricted area would remain constant, no matter the launch trajectory, while the danger areas could vary significantly.

If the proposed restricted area is permanently designated, it is will be effective from the next available AIRAC cycle date once the assessment is made following the close of submissions. Based on the cut-off dates for publication in SUP, this could be 19 July 2018. Cut-off for inclusion on the next visual navigation chart update effective 8 November 2018 is Thursday 19 April.

## **Proposed restricted area**

Civil aviation rule 71.153(a)(1) enables the Director to designate restricted areas within the territorial limits of New Zealand, i.e. within 12 NM of the coastline. This limitation affects the final design of the restricted area, which uses the eastern and southernmost points of land – Kahutara Point and Portland Island respectively – to determine the boundaries.

Further complicating the design of the restricted area is the airspace affected also includes portions of control areas under the jurisdiction of three different air traffic control units – Ohakea Area, Bay Area and Gisborne Approach –

- NZA347, Ohakea Area, 9500 ft – FL600
- NZA430, Gisborne Approach, 3500 ft – 9500 ft
- NZA432, Gisborne Approach, 6500 ft – 9500 ft

- NZA434, Bay Area, 9500 ft – FL600.

To simplify management of the restricted area, it is proposed to classify the airspace as uncontrolled Class G airspace, when it is active. The administering authority would be named as Rocket Lab Ltd, who would be responsible for managing the entry into, operation of aircraft within, and the exit of aircraft from the restricted area.

The upper limit of the proposed restricted area is 13,500 ft AMSL. Above the restricted area would be a temporary danger area, which would also extend from the boundaries of the restricted area from the surface to FL600. The temporary danger area, above and coincident with the boundaries of the restricted area, would be contained entirely within controlled airspace, and air traffic control is able to provide routing which would keep aircraft clear of the danger area.

The proposed restricted area is shown in Figure 1 below.

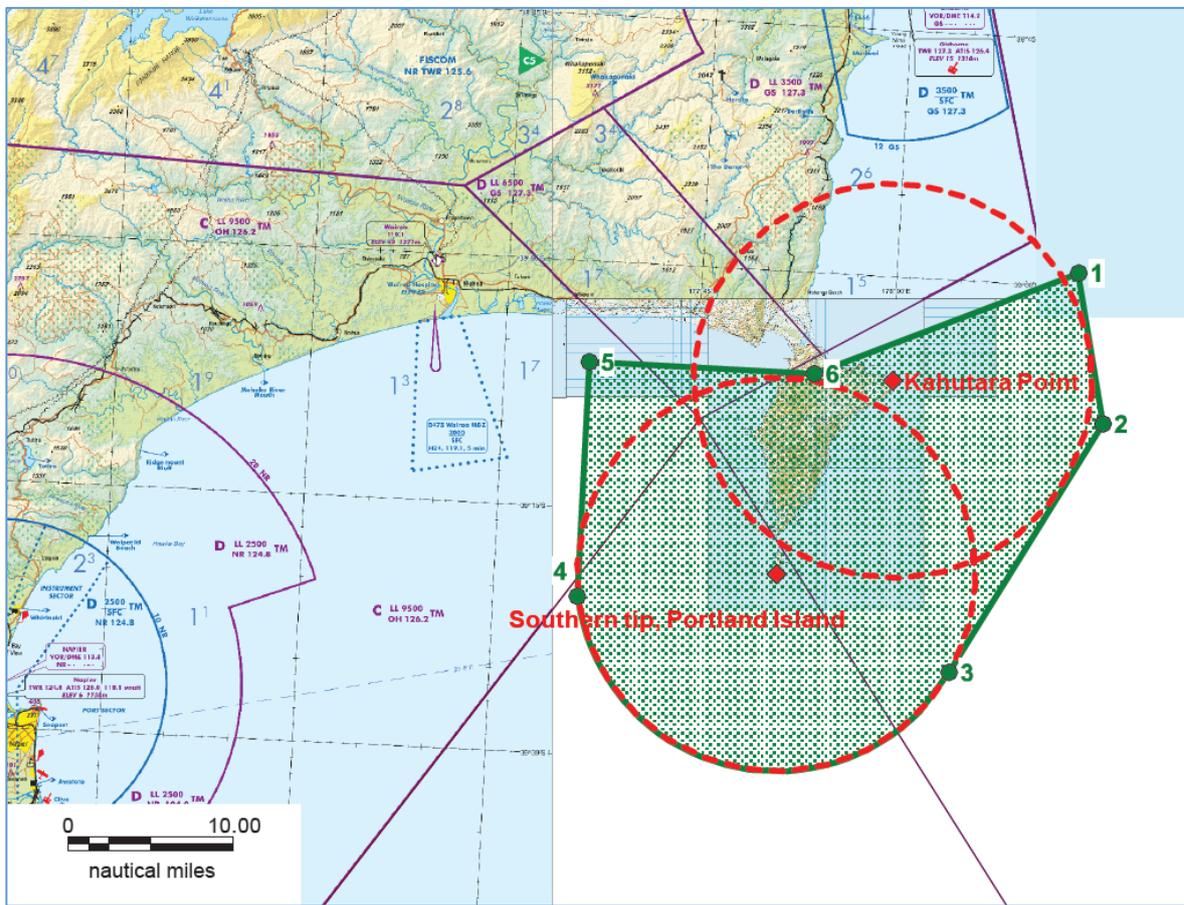


Figure 1 – proposed Mahia restricted area

As stated in the last paragraph of the introduction, due to the differing trajectories of the launches, temporary danger areas over the high seas will vary. Work is currently being undertaken to determine the boundaries of possible permanently designated danger areas which would be activated by NOTAM for a launch.

### **Possible effect on IFR aircraft**

The effect for IFR aircraft should be minor.

When the proposed restricted area would be active, ATC are able to provide routing to aircraft which remains clear of the area. This would only affect aircraft tracking via COOKS on the STAR or SID procedures and there are alternative procedures available.

There is no effect to the instrument approaches at Gisborne aerodrome.

### **Possible effect on VFR aircraft**

There should also be only a minor effect to VFR aircraft routing. Aircraft would be still able to track seaward of the coast if necessary, and cross the isthmus leading out to Mahia Peninsula while remaining clear of the proposed restricted area.

It is understood that Rocket Lab Ltd already has agreements with the owners of local private aerodrome/heliports.

## **Consultation**

Prior to designating airspace, Civil Aviation Rule 71.9 requires the Director to consult with affected persons, organisations and representative groups within the aviation industry before making a designation or classification of airspace.

The Director invites feedback in regard to the proposed airspace change.

At this stage it is not intended that CAA will hold an airspace consultation meeting unless this is specifically requested by users.

This document will be sent directly to the organisations listed below. It would be appreciated if you would kindly forward the document to your members for consideration and comment.

### **Aerodrome operators (charted aerodromes only)**

- Gisborne aerodrome (Gisborne Airport Ltd)
- Gisborne Hospital heliport (Tairāwhiti District Health Board)
- Hastings aerodrome (Hawke's Bay & East Coast Aero Club)
- Napier (Hawkes Bay Airport Authority)
- Wairoa aerodrome (Wairoa District Council)

- Wairoa Hospital heliport (Wairoa Care Hawkes Bay)

### **Operators, Organisations and User Groups**

Major operators, organisations and user groups have been identified as:

- Air Gisborne
- Air New Zealand Group – includes Mount Cook and Air Nelson
- Aircraft Owners and Pilots Association
- Airways Corporation of New Zealand
- Balloon Association of New Zealand
- Central Hawkes Bay Aero Club
- Dannevirke Flying Club
- Eagle Flight Training
- Flying NZ
- Gisborne Aero Club
- Gliding New Zealand
- Hawke's Bay & East Coast Aero Club
- Massey School of Aviation
- Model Flying New Zealand
- Napier airspace user group
- New Zealand Agricultural Aviation Association
- New Zealand Airline Pilots Association
- New Zealand Aviation Federation
- New Zealand Hang Gliding and Paragliding Association
- New Zealand Helicopter Association
- New Zealand Parachute Federation
- New Zealand Parachute Industry Association
- Recreational Aircraft Association of New Zealand
- Royal New Zealand Air Force

- Skyline Aviation Ltd
- Sport Aircraft Association New Zealand
- Sport Aviation Corp

This document is also available on the CAA website at the following link:

<http://www.caa.govt.nz/airspace/airspace-review/>

Notifications will be sent to CAA email notification subscribers to Airspace Notifications – Briefing Area 4.

If there are any further questions regarding the consultation process, please contact Paula Moore – contact details below.

## **Submissions**

This document forms part of the consultation process. Submissions are sought from any interested person, organisation or representative group.

Submissions are accepted either electronically or via mail.

Please address submissions to:

Group Executive Officer  
Aviation Infrastructure and Personnel  
Civil Aviation Authority of New Zealand  
PO Box 3555  
Wellington 6140

Fax: 04-569-2024

Email: [dianne.parker@caa.govt.nz](mailto:dianne.parker@caa.govt.nz)

Reference – Proposed restricted area – Mahia Peninsula

Closing date for submissions is **Thursday 12 April 2018**.

## **Further information**

For further information contact:

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